



# Ticks and Shoreland Vegetation

## Minimize Contact with Ticks While Protecting Water Quality

### Fact Sheet

Lake friendly living practices to help minimize the risk of contact with ticks while protecting water quality

Create beautiful, natural shorelands that offer a diversity of native species, many of which are deer resistant and less likely to have high populations of ticks.



Highbush Blueberry



Cranberry Viburnum



Cinnamon Fern

Ticks have arrived in Vermont. As a host for ticks, deer have helped spread them quickly throughout the state. Understanding the tick life cycle, which includes a larval stage typically on mice and a nymph stage on deer, and under what conditions their populations increase, will help with managing native vegetation along shorelands to minimize risk of human contact with them.

### Strategies for Minimizing Contact with Ticks Along Shorelands

#### 1. Plant and Promote Native Species

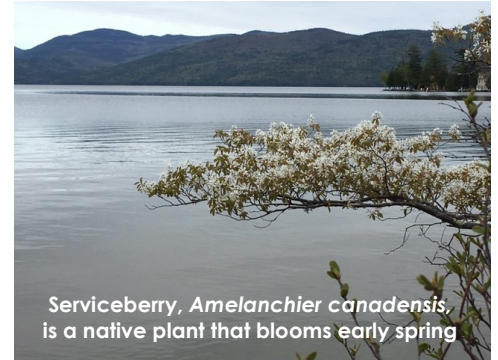
Native plants diversify habitat for birds and other wildlife. Birds, like owls, eat ticks, other bugs, and mice, lowering the tick population. Additionally, with a varied growth form, native plant communities create an environment that is less protective of mice and ticks. Native plants also protect property against storm damages and protect water quality.

#### 2. Plant Deer Resistant Native Species

Highbush blueberry (*Vaccinium corymbosum*); Viburnums; Winterberry (*Ilex verticillata*); Sweet Pepperbush (*Clethra alnifolia*); Lowbush Fragrant Sumac (*Rhus aromatica*); Serviceberry (*Amelanchier canadensis*); Willows; and Dogwoods are examples of some native shrubs that deer don't browse on. Paper and Yellow Birch (*Betula spp.*), Red Maple (*Acer rubrum*); and many other native tree species are deer resistant. Most ferns are as well, along with other herbaceous plants like Bee Balm (*Mondarda fistulosa*); Asters; Lupine (*Lupinus perennis*); and Wild Sarsaparilla (*Aralia nudicaulis*). These native species also maintain a humidity level that is not necessarily promotive of tick growth.

#### 3. Create Meandering Pathways

Under the new Shoreland Protection Act, a six foot wide pathway is allowed without a permit. The Shoreland Permitting and Lake Wise Programs encourage shoreland owners to create, mulched, meandering paths to access the lake. Pathways minimize brushing against ticks.



Serviceberry, *Amelanchier canadensis*, is a native plant that blooms early spring



Above three photos show examples of meandering pathways that filter runoff and protect the lake, while minimizing contact with ticks, that hang from leaves and tips of plants waiting to be brushed against to climb onto a host.



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## 4. Remove Invasive Non-Native Species

Research from the University of Connecticut in the town of Lyme, where “Lyme Disease” was named after, found twelve times as many disease-infected ticks in invasive, non-native Japanese barberry (*Berberis thunbergii*) patches than in natural forest settings with no barberry. Their research showed that barberry creates a better environment for mice and ticks than most native shrub communities because of the growth form of the plant. With the arching branches and dense stem count, it not only protects physically from predators, but also creates a unique climate of relative humidity that ticks thrive in.

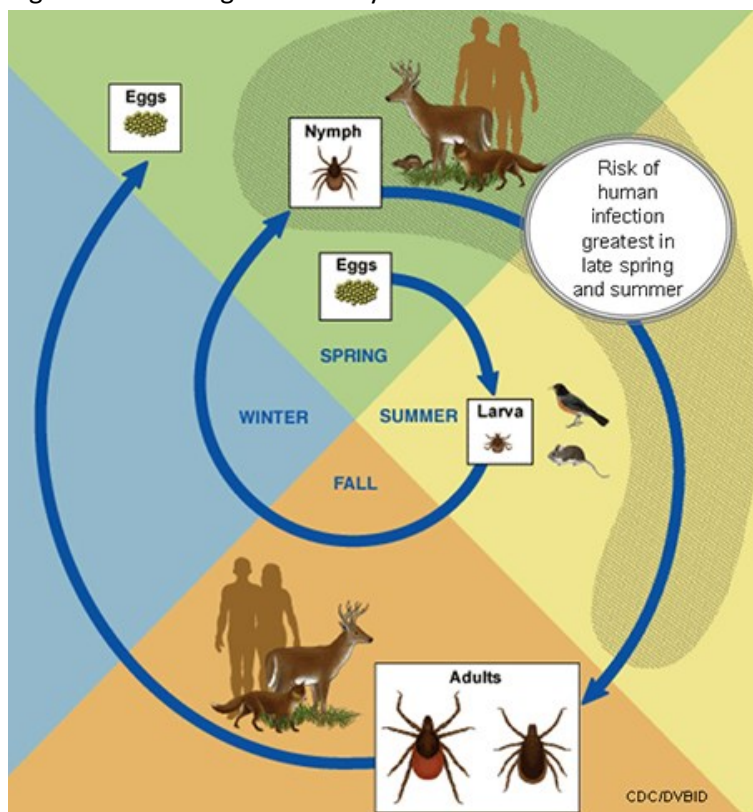


## 5. Visit the Vermont Department of Health’s web site for more information at: [HealthVermont.Gov](http://HealthVermont.Gov)

VDH recommends preventing tick bites with repellents registered by the EPA, like DEET (don’t use on infants); Picaridin; and Oil of Lemon Eucalyptus. On clothing (not skin) use the insecticide, Permethrin. And, always check for ticks after spending time outdoors.

## LYME DISEASE

Lyme disease is the most commonly reported tickborne disease in Vermont. It is caused by bacteria called *Borrelia burgdorferi* that are spread by the bite of a blacklegged tick. Ticks become “infected” during their larval stage when they first feed on blood of animals.



## Four Types of Ticks That Spread Diseases

Not all kinds of ticks spread diseases. There are over a dozen different types of ticks in Vermont, but only four are known to bite humans and spread diseases.

### Blacklegged Tick (*Ixodes scapularis*)



### Lone Star Tick (*Amblyomma americanum*)



### American Dog Tick (*Dermacentor variabilis*)



### Woodchuck Tick (*Ixodes cookei*)



Enlarged Sizes